

Primer on Forex¹

Using MT4, we are able to trade Foreign Exchange (aka Forex or FX), Indices, Stocks and Commodities (the last 3 via CFDs²). The available products depends on your broker. Our Metaquotes demo account only has information on Forex.

Thus, this document will guide us on the basics on Forex. The information here is nowhere exhaustive of what you should know in order to design great Trading Robots but it is enough to get started. (For more information, check out: <http://www.babypips.com/school>)

What is traded

The simple answer is Money.

Because you're not buying anything physical, this kind of trading can be confusing. You are buying a country's currency with another. It is the same process when you exchange currencies before an overseas vacation.

Major Currency Pairs

The currency pairs listed below are considered the "majors". These pairs all contain the U.S. dollar (USD) on one side and are the most frequently traded. The majors are the most liquid and widely traded currency pairs in the world.

Pair	Countries	FX Geek Speak
EUR/USD	Euro zone / United States	"euro dollar"
USD/JPY	United States / Japan	"dollar yen"
GBP/USD	United Kingdom / United States	"pound dollar"
USD/CHF	United States/ Switzerland	"dollar swiss"
USD/CAD	United States / Canada	"dollar loonie"
AUD/USD	Australia / United States	"aussie dollar"
NZD/USD	New Zealand / United States	"kiwi dollar"

¹ Source: <http://www.babypips.com/school>

² See last page for more information on CFD

How do we make \$\$\$?

Trader's Action	EUR	USD
You purchase 10,000 euros at the EUR/USD exchange rate of 1.1800	+10,000	-11,800*
Two weeks later, you exchange your 10,000 euros back into U.S. dollar at the exchange rate of 1.2500	-10,000	+12,500**
You earn a profit of \$700	0	+700

*EUR 10,000 x 1.18 = US \$11,800

** EUR 10,000 x 1.25 = US \$12,500

Some terminologies



Base Currency

The base currency is the first currency in any currency pair. The currency quote shows how much the base currency is worth as measured against the second currency. For example, if the USD/CHF rate equals 1.6350, then one USD is worth CHF 1.6350.

Quote Currency

The quote currency is the second currency in any currency pair. This is frequently called the pip currency and any unrealized profit or loss is expressed in this currency.

Long/Short

First, you should determine whether you want to buy or sell.

If you want to buy (which actually means buy the base currency and sell the quote currency), you want the base currency to rise in value and then you would sell it back at a higher price. In trader's talk, this is called "going long" or taking a "long position." Just remember: **long = buy**.

If you want to sell (which actually means sell the base currency and buy the quote currency), you want the base currency to fall in value and then you would buy it back at a lower price. This is called "going short" or taking a "short position". Just remember: **short = sell**.

Spread

The spread is the difference between the bid and ask prices. The bid price is the price you pay if you want to sell, the ask price is the price you pay if you want to buy.

Since the ask price is always higher than the bid price, you buy at a slightly higher price and sell at a slightly lower price.

You lose money on every trade.

Your broker is the counterparty to your trade. When you buy, he sells to you, and vice versa. Thus, he makes money from the spread from you.

That is part of the revenue model of brokers.

Pip

A pip is the smallest unit of price for any currency. Nearly all currency pairs consist of five significant digits and most pairs have the decimal point immediately after the first digit, that is, EUR/USD equals 1.2538. In this instance, a single pip equals the smallest change in the fourth decimal place – that is, 0.0001. Therefore, if the quote currency in any pair is USD, then one pip always equal 1/100 of a cent.

Notable exceptions are pairs that include the Japanese yen where a pip equals 0.01.

Pipette

One-tenth of a pip. Some brokers quote fractional pips, or pipettes, for added precision in quoting rates. For example, if EUR/USD moved from 1.32156 to 1.32158, it moved 2 pipettes.

Lots

In the past, spot forex was traded in specific amounts called lots. The standard size for a lot is 100,000 units. There is also a mini, micro, and nano lot sizes that are 10,000, 1,000, and 100 units respectively.

A unit is a dollar of the *base* currency. Most brokers should allow you to trade Micro lots.

Lot	Number of Units of Base Currency
Standard	100,000
Mini	10,000
Micro	1,000
Nano	100

Pip Value

Pip value is the dollar change due to 1 pip change in price.

We will look at some examples to calculate pip value for one standard lot (100,000).

CASE 1: EUR/USD at an exchange rate of 1.1930

$$1 \text{ EUR} = 1.1930 \text{ USD}$$

Since 1 standard lot is 100,000 EUR...

$$100,000 \text{ EUR} = 119,300 \text{ USD}$$

When there is a 1 pip increase

$$1 \text{ EUR} = 1.1931 \text{ USD}$$

$$100,000 \text{ EUR} = 119,310 \text{ USD}$$

Thus, the value of 1 pip is 10 USD.

If your account's currency is not in USD. Convert the 10 USD to your account currency.

Eg. If my account in is AUD, and AUDUSD is currently 0.6742.

$$10 \text{ USD} = 10/0.6742 = 14.83 \text{ AUD}$$

Hint: For those who are confused on why we divide by 0.6742, think of it this way:

$$\text{AUDUSD} = 0.6742$$

$$1 \text{ AUD} = 0.6742 \text{ USD}$$

$$0.6742 \text{ USD} = 1 \text{ AUD}$$

$$0.6742/0.6742 \text{ USD} = 1/0.6742 \text{ AUD (divide both sides by 0.6742 to get 1 USD on the left side)}$$

$$1 \text{ USD} = 1/0.6742 \text{ AUD}$$

$$10 \text{ USD} = 10/0.6742 \text{ AUD (this is what we did!)}$$

$$10 \text{ USD} = 14.83 \text{ AUD}$$

Another mental guide: When AUDUSD is 0.6742, this means 1 AUD can be changed for 0.6742 USD. Thus, the number of AUD has to be bigger than the number of USD!

CASE 2: GBP/USD at an exchange rate of 1.8040

$$1 \text{ GBP} = 1.8040 \text{ USD}$$

Since 1 standard lot is 100,000 GBP...

$$100,000 \text{ GBP} = 180,400 \text{ USD}$$

When there is a 1 pip increase

$$1 \text{ GBP} = 1.8041 \text{ USD}$$

$$100,000 \text{ GBP} = 180,410 \text{ USD}$$

Thus, the value of 1 pip is 10 USD.

Note: When the quote currency is the same as your account's currency, 1 pip always equals to \$10.

CASE 3: USD/CAD at an exchange rate of 1.3348

$$1 \text{ USD} = 1.3348 \text{ CAD}$$

Since 1 standard lot is 100,000 USD...

$$100,000 \text{ USD} = 133,480 \text{ CAD}$$

When there is a 1 pip increase

$$1 \text{ USD} = 1.3349 \text{ CAD}$$

$$100,000 \text{ USD} = 133,490 \text{ CAD}$$

Thus, the value of 1 pip is 10 CAD, or $10/1.3349$, which is 7.49 USD.

CASE 4: USD/JPY at an exchange rate of 119.80 (Note that USD is the base currency and 1pip is now 0.01)

$$1 \text{ USD} = 119.80 \text{ JPY}$$

Since 1 standard lot is 100,000 USD...

$$100,000 \text{ USD} = 11,980,000 \text{ JPY}$$

When there is a 1 pip increase

$$1 \text{ USD} = 119.80 \text{ JPY}$$

$$100,000 \text{ USD} = 11,981,000 \text{ JPY}$$

Thus, the value of 1 pip is 1000 JPY, or $1000/119.80$, which is 8.35 USD.

Leverage

Leverage is the ratio of the amount capital used in a transaction to the required security deposit (margin). It is the ability to control large dollar amounts of a security with a relatively small amount of capital. Leveraging varies dramatically with different brokers, ranging from 2:1 to 500:1.

Margin

When you open a new margin account with a forex broker, you must deposit a minimum amount with that broker. This minimum varies from broker to broker and can be as low as \$100 to as high as \$100,000.

Each time you execute a new trade, a certain percentage of the account balance in the margin account will be set aside as the initial margin requirement for the new trade based upon the underlying currency pair, its current price, and the number of units (or lots) traded. The lot size always refers to the base currency.

For example, let's say you open a mini account which provides a 200:1 leverage or 0.5% margin. Mini accounts trade mini lots. Let's say one mini lot equals \$10,000. If you were to open one mini-lot, instead of having to provide the full \$10,000, you would only need \$50 ($\$10,000 \times 0.5\% = \50).

Extra: Contract For Difference (CFDs)

As mentioned, we are able to trade Foreign Exchange (aka Forex or FX), Indices, Stocks and Commodities (the last 3 via CFDs) using MT4. So what are CFDs?

Definition: A CFD is a tradable instrument that mirrors the movements of the asset underlying it. It allows for profits or losses to be realized when the underlying asset moves in relation to the position taken, but the actual underlying asset is never owned. Essentially, it is a contract between the client and the broker.

In simpler words: A CFD give us the exposure of the underlying asset, but we don't actually own the asset.

Read more about CFDs here:

<http://www.investopedia.com/articles/stocks/09/trade-a-cfd.asp>

https://en.wikipedia.org/wiki/Contract_for_difference